A study of second language acquisition in two Japanese children, and corresponding examination of research literature, led to this effort to clarify terminology related to cross-linguistic influence in language contact situations. Terms include: bilingualism, code-switching, language mixing, language transfer, and borrowing. Two forms of transfer are distinguished: borrowing (the influence of a second language on a previously acquired language) and substratum (the influence of a native language or some other previously learned language on acquisition of another language). Borrowing refers to lexical borrowing, usually confined to single-item terms but sometimes extended to phrase- and sentence-level constructions. Code-switching is the alternation of languages within a single discourse, sentence, or constituent, and is rule-governed and characterized by social functions. Several theorists distinguish between kinds of code-switching: situational vs. conversational; emblematic vs. intimate; and matrix language vs. embedded language. Three distinct models of bilingualism are identified: (1) one positing two monolingual grammars and a separate grammar of code-switching; (2) two monolingual grammars combined in code-switching; and (3) two monolingual grammars used by a processor with a separated code-switching mechanism. Contains 39 references. (MSE)
Bilingualism, Code-switching, Language Mixing, Transfer and Borrowing; Clarifying Terminologies in the Literature

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Bilingualism, Code-switching, Language Mixing, Transfer and Borrowing: Clarifying Terminologies in the Literature

Kazuko Yumoto

1. Introduction

Bilingualism and multilingualism are reported to be quite common in language contact situations. Such linguistic phenomenon is widespread in Europe (Switzerland, Luxembourg, Belgium), Asia (India, Philippines, Indonesia) and Africa. In the Balkans, for instance, there is “considerable overlap in lexicon, phonology, morphology, and syntax among local varieties of Slavic and adjoining dialects of Greek, Rumanian and Albanian” (Gumperz 1967:49); and the overlaps are said to be between historically unrelated languages.

Language contacts pose interesting issues from sociolinguistic point of view, such as language mixing, borrowings from other languages into the native language, transfer of the native language to a second language; code-switching, or the alternation of two languages within a single discourse. Bilingualism and multilingualism pose linguistic questions of the model of bi/multilingualism; language mixing and code-switching raise questions of what model of grammar would produce juxtaposition of utterances of different codes.

The present paper is a byproduct of a study on child bilingualism, language mixing and code-switching. A study on child second language acquisition aroused my personal interests on the issues: Japanese children whom I had observed offered quite different initial processes of second language acquisition (discussed in the next section). The study led me to a labyrinth of overlapping terminologies in the literature. To understand basic concepts of the issues re-
quires first a clarification of conflicting terms. Accordingly, the objective of the paper is to clarify some of the terminologies related to cross-linguistic influences.

2. Background of The Study

The process of acquiring a second language (L2) varies according to various factors such as age, attitude, personality, language learning strategies, the degree of L2 exposure, formal or natural context, linguistic distance from L1 to L2, to mention a few. In child L2 acquisition the level of L1 competence and the stage of cognitive development in Piagetian terms pose important factors. The core factor that integrates these various factors in child L2 acquisition is the age of onset. It plays a crucial role in the way a child processes incoming L2 data. There seem to exist qualitative differences in linguistic processing of children between the pre-operative stage and the concrete stage of cognitive development. A child at the concrete operations stage or above that stage seems to acquire L2 in top-down cognitive processing while a child at or below the pre-operative stage, in bottom-up processing starting from a one-word utterance (Yumoto 1990).

This assumption is made on the basis of my observation of two Japanese children of different ages, 8 years old (M) and 4 years old (N), in natural second language acquisition. The observation has led to a hypothesis that an older child with his L1 background must possess a schematic concept of language in general; and that it enables the child to resort to the basic universal rule, S → NP VP as his supreme command. This hypothesis, in return, has been derived from the different processing of L2 manifested by the children: the 8 year old child processed L2 top-down, and nearly after 6 month of silent period, produced "I do now change clothes" as his first L2 utterance, while the 4 year old acquired English in an accumulative manner starting with one-word utterance. They also differ in sorting out two languages. The older sorted out two languages well and/or very rarely mixed languages, while the younger one mixed languages so frequently on word, phrase and sentence levels. As a matter of fact, language mixing was his principal initial strategy of L2 acquisition and it remained so even after he acquired English syntax comfortably enough to communicate in the language. When he did not have an appropriate English word in his repertoire on hand, he simply borrowed a Japanese word and slotted it in the English structural frame. Using a native device, he would Anglicize it in terms of pronunciation, stress and rhythm to go with the English sound system. This Anglicizing phenomenon is referred to as "relexifications", in which a native word is "activated in the learner's mind and then 'relexified' i.e., modified phonologically to make it better conform to
Language mixing was so spontaneous with the child (N) that it seemed to be free from any constraints whatsoever. What struck me about his language mixing performance was that items from the native stock was embedded well to the phonological system as well as to the syntactic system of the target language; this was possible by conforming the embedded constituent to the stress, vowel lengthening, rhythm and intonation patterns of the English language, and by manipulating morphological devices, modifiers and the syntactic position appropriate to the L2. The incorporation of the constituents of the L1 into the L2 was so smooth and natural that two languages seemed to be as if merged into one single system. He was successful enough to make his speech sound like the target language by means of language mixing. His discourse seemed to be a random juxtaposition of items from the two languages, however, it was in actuality a developmental interlanguage which manifests internalized rules through the process of creative generalization of his own unique grammar (Yumoto 1984).

Then what kind of grammar was it to generate language mixed discourse? How were two systems working in his mind? Mixing languages was so natural with him that raised me many questions including whether it is a part of innate human property in language contact situations to mix languages. Unexpected language mixing performance triggered my interests in cross-linguistic influences in the literature.

3. A Research in the Literature: Terminologies and Definitions

There are overlapping of terminologies to describe categorizations of language mixing
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phenomenon in the literature. Language mixing refers to "the merging of characteristics of two or more languages in any verbal communication" (Odlin 1989:6). It may be used as a cover term for the merging of languages in contact situations in general, which takes the forms of transfer, borrowings, code-switching and mixing in child bilingualism (Odlin 1989:7, 140). On the other hand it may be used in a narrower sense as mixing of languages in young bilinguals (Redlinger and Park 1980). Language mixing and code-switching are often equated in bilingualism but the latter is one type of the former (Odlin 1989). Young bilinguals who mix languages are not always aware of the two separate systems (Grosjean 1982, Taeschner 1983, Döpke 1992), thus their mixing languages is expressed as "unfocused mixing" (Odlin 1989:140). One comment should be introduced here: if the child is not aware of there being two systems, then (s)he is simply using one system/language; the observer (analyst) is the only one who experiences the phenomenon of "mixing"—it is the observer who creates the phenomenon, not the user (comment by Yule).

Confusions of terminologies may be depicted even in the different orthographies: to describe the same linguistic phenomenon in two to three different ways as in code mixing or codemixing; code switching, code-switching or codeswitching. The most widely studied field of language mixing phenomenon is code-switching. We will clarify overlapping terminologies and describe basic concepts in the literature.

3.1. Transfer and Borrowing

Language mixing may be considered to be one type of transfer (Odlin 1989), or interference (Garder-Chloros 1990). Transfer or cross-linguistic influence includes borrowing transfer and substratum transfer. Borrowing transfer refers to "the influence of a second language has on a previously acquired language (which is typically one's native language)" (Odlin 1989:12). A case of borrowing transfer is documented in Dyirbal, an aboriginal language in Australia. It has undergone attrition as a consequence of the exposure to English (reported in Odlin 1989:12). Other cases of attrition triggered by borrowing transfer include a variety of Swiss Romanish influenced by German, varieties of Greek influenced by Turkish and Norwegian influenced by American English (Odlin 1989:12). Louisiana French is another example (comment by Yule).

Substratum transfer refers to "the influence of a native language or some other previously learned language on the acquisition of another language" (Odlin 1990:97). Substratum transfer (or simply transfer) is commonly observed in second language learner contexts. Some cases of substratum transfer include Hawaiian Pidgin English, Korean Bamboo English, Pidgin Fijian...
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(Odlin 1990), Philippine English, Hiberno-English (Odlin 1991), Quechuan Spanish (Odlin 1989) and Turkish Dutch (Jansen, Lalleman, and Muysken 1981).

A case of non-native influence on another second language is reported on Swedish influence on the English of Finnish learners (Ringbom 1985). There is also the case of immigrants (e.g. from Korea) to New York City who learn Puerto Rican or Black English Vernacular dialects as part of their English language learning (comment by Yule; see Goldstein 1987). There is a difference between transfer of a native language (L1) and that of a non-native language (LN): “L1-influence may manifest itself as either transfer or borrowing, whereas LN-influence tends to manifest itself in borrowing only, i.e. in contexts where the search for a lexical item has merely activated another item, usually formally similar, in a non-native language” (Ringbom 1985:56).

3.2. Borrowing vs. Switching

When two languages are in contact, individuals with specific communicative needs, try to make the languages “more alike, so to speak, by filling in what is lacking in each one with constructions from the other, i.e., by linguistic borrowing” (Baker 1980:4). Linguistic or lexical borrowing is considered in its origin to be “a process that takes place in each individual before it is projected as group behavior” (Haugen 1969:383) at large. Words borrowed by the community, “although they probably started out as switches, should no longer be thought of as such” (Baker 1980:4), and become part of the other language as loanwords.

Borrowings could be defined as “single-item terms that are proper nouns or names of particular places or things, items that cannot be translated” (Baker 1980:6). However, some claim that borrowings also include phrasal and sentential level constructions such as “deja vu” or “plus ça change” in English (comment by Yule).

The criteria for distinguishing borrowings from code-switching is, thus, related to the recognition of the usage on a community-wide basis and intranslatability. Borrowings are generally excluded from the category of code-switching. However, they are included into code-switching by some researchers (Poplack 1980:583) when they preserve the phonological patterns of the source language.

3.3. Code-switching

Code-switching is defined as “the alternation of languages within a single discourse, sentence or constituent” (Poplack 1980:583). It is classified according to the position of the switch
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into intrasentential or intersentential. Code-switching is rule-governed and characterized by social functions.

Code-switching may frequently take place in the following contexts: 1. the listener has changed; 2. the setting has changed, or the other language is habitually associated with the new setting; or 3. the topic has changed, or the other language is associated with the new topic. (Baker 1980:3).

It is reported that bilingual speakers use two languages within one conversational context as individual behavioral norms (Gumperz 1967, 1982, Grosjean 1982, Lipsky 1985, Poulisse and Bongaerts 1994, Hakuta 1986). These studies show that bilinguals switch between languages for various reasons and contexts. Some of the motivations of code-switching are the lack of a particular word or inability to find words to express oneself, that is, “to fill a linguistic need” (Poulisse and Bongaerts 1994:1) or the greater availability of a word in the other language.

Code-switching is also motivated by psychological factors. It marks a change of subjects, to express certain emotions as an indication of anger, annoyance and authority reinforcement (Gumperz 1970). It has social functions: it emphasizes self-identity, and marks group membership, solidarity or social status or class (Grosjean 1982:149-157, Gumperz 1982:75-83).

3.3.1. Classifying Code-switching

3.3.1.1. Situational vs. Conversational Code-switching

Gumperz distinguishes two types of code-switching, conversational code-switching and situational code-switching (he spells code switching). The situational variables such as the topic, listener, and speech event trigger code-switching. Social functions of this type of code-switching are “the marking of status and role of speaker and listener, and the indication of informal or formal topic, situation, or event” (Baker 1980:3). Heller points out that situational code-switching is “rooted in a social separation of activities (I associated role relationships), each of which is conventionally linked to the use of one of the languages or varieties in the community linguistic repertoire” (Heller 1988:5). Thus in situational code-switching “alternation between varieties redefines a situation, being a change in governing norms” (Blom & Gumperz 1972:409).

In another type of code-switching, conversational code-switching, the situation remains unchanged, that is the listener, setting and topic remains constant. Conversational code-switching is defined “as the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems. Most frequently the alternation takes the form of two subsequent sentences, as when a speaker uses a second language
either to reiterate his message or to reply to someone else’s statement” (Gumperz 1982:59). Conversational code-switching is observed to occur as: direct quotes, reported speech, a method of directing a message to a particular addressee, a marker of an interjection or sentence filler (Gumperz 1982:63-79). This is not too different from style-shifting by monolingual speakers.

Gumperz observed “conversational code switching as a sociolinguistic phenomenon” (1982:69). When individuals feel a strong sense of belonging to a group, they are concerned about reserving the linguistic forms which are characteristic of the group to diverge themselves from the majority group. Code-switching functions as “communicative conventions of closed network situations” (Gumperz 1982:72) where “switching strategies serve to probe for shared background knowledge” (1982:72), cultural values of the particular speech community. Alternation of language functions as a pass word for ethnic-identity and solidarity of the community. Code-switching is most frequently found in the informal speech of members of “cohesive minority groups . . . who speak the native tongue at home, while using the majority language at work and when dealing with members of groups other than their own” (1982:64). According to Gumperz the minority language tends to be “we” code as the language of ethnic identification, and the majority language, “they” code (1982:83).

3.3.1.2. Emblematic code-switching vs. Intimate code-switching

Poplack (1980) distinguishes switching into emblematic code-switching and intimate code-switching. She refers to those switching as ‘intimate’ type, which consists of integral parts of the syntactic structure of a sentence: “a code-switched segment, and those around it, must conform to the underlying syntactic rules of two languages which bridge constituents and link them together grammatically” (1980:589). She calls ‘less intimate type’ (1980:589) of switching as “emblematic, including tags, interjections, and some idiomatic expressions, even individual noun switches” (1980:614, for examples:596). She admits that they are generally excluded from code-switching and that only intimate type of switching is considered to be “true instances of code-switching” (1980:589). However, she maintains both as code-switching of different types classified on the basis of ethnic content, translatability, grammatical rules and degrees of bilingual competence. Emblematic code-switching are “often heavily loaded in ethnic content and would be placed low on a scale of translatability” (1980:589). While non-fluent bilinguals were observed by her to use emblematic, balanced bilinguals used both types of switching and most favoured intrasentential (intimate) code-switching (1980:613).
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Other researchers use different classification and definitions. Praff’s (1976) description is most inclusive in that she does not limit the data in any other way as long as “participants, topic and social setting remain constant” (1979:248). Jacobson’s (1976) distinction parallel closer to Poplack’s in that he distinguishes true code-switching from semi-code-switching. The latter includes borrowing, terminology, loan translation and momentary lack of access. McClure (1977) and Wentz (1977) distinguish between code-mixing and code-changing. Code-mixing is mixing of elements from one language to the other language, and is felt to be in one language; code-changing is “an alternation of languages at the level of the major constituent (e.g. NP, VP, S) . . . a complete shift to another language system” (McClure 1977:7) and felt to be “in both languages” (1977:7). The categorization seems to be based on the length of the switched items, single or larger constituents.

Most of the research on code-switching focus on “intimate”, “true” or “conversational”, whatever it may called, code-switching because it occurs intrasententially as well as within constituents, and thus “raises questions of just what model of grammar would generate these kinds of utterances” (Baker 1980:3).

3.3.1.3. The Matrix Language vs. Embedded Language

Myers-Scotton (1992) proposes a model of code-switching called Matrix Language Frame Model in which she describes the structural constraints on intrasentential code-switching. She distinguishes the Matrix Language (ML) from the Embedded Language (EL). She defines the ML as “the language providing relatively more morphemes for the relevant interaction type than the other language(s) used in the same conversation” (1992:105). It is the dominant language in the conversation. She describes intrasentential code-switching as “an insertion process”, in which EL content morphemes are inserted into ML morphosyntactic frames (1992:104): the ML determines the morphosyntactic frame for ML + EL constituents (1992:109). This “ML Hypothesis” provides two principles. “The Morpheme Order Principle” and “the System Morpheme Principle” (1992:108). The first principle claims that surface morpheme order in ML + EL constituents must follow that of the ML (1992:108); the second principle says that “active system morphemes (i.e.inflections and certain function words) in ML + EL constituents only come from the ML” (1992:113). This principle echoes Kamwangamalu’s “the Matrix Code Principle” (Kamwangamalu 1989) that claims that the embedded code “must conform to the morphosyntactic structure” (1989:157) of the Matrix Code.
4. Models of Bilingualism

Mixing language and code-switching raise questions of what model of grammar bilinguals have, and provide us insights into models of bilingualism. There are three views of grammatical structures of bilinguals who switch between languages: 1. there are “three separate underlying linguistic systems” (Kamwangamalu 1989:159), two monolingual grammars and a separate grammar of code-switching (Sankoff and Poplack 1980); 2. there are two monolingual grammars which are combined in code-switching, a combination of grammars (Woolford 1983); and 3. two monolingual grammars are used by “a processor which contains a separated code-switching control mechanism” (Joshi 1983, reported in Ewing 1984:53).

The Japanese children whom I had observed seemed to have a different model of bilingual grammar. The 4 year old, N, might have a combination of grammars in switching languages and, accordingly, could be classified into category 2 above, while the 8 year old, M, may be classified into category 3. N’s extensive use of mixing language, especially intrasentential code mixing suggests that he had developed the compound system of bilingual model. The compound system is said to be developed in fused language contexts. This might explain why N mixed languages in an easy and spontaneous manner, while observing constraints of the two languages. M, on the other hand, had developed the coordinate system of bilingualism so that the two systems were distinctively separated. Differences in bilingual models may be explained by L1 proficiency and cognitive development (Yumoto 1984).

However, I have realized that the interpretation of bilingual models for the children, at least for N, must be modified after reading Poplack (1980), who equates balanced bilinguals with compound bilinguals. She points out that balanced bilinguals are most skillful in intrasentential code-switching. In the case of N language mixing seemed to be one of his early strategies of acquisition to fill a linguistic need with limited proficiency. This is often the case with child bilinguals whose dependency on filling in what they lack from their repertoire; and the degree of such dependency decreases with the development of the languages (Döpke 1991). With the development of the English language N produced fewer mixed utterances. The compound bilingual model should be considered in simultaneous acquisition of languages as first languages, and which is not applicable to the case of N. We should take it into consideration that the concept of compound and coordinate distinction was first discussed (Weinreich 1953) in Europe where cultures are shared and linguistic distance is close.
5. Conclusion

Bilingualism, language mixing, code-switching, transfer and borrowing are aspects of cross-linguistic influence in language contact situations. They are worth studying as they provide insights into the dynamic creative process of language change and developments on community-wide basis as well as individually. We have examined overlapping terminologies to clarify the concepts and categorization of language use in bilingual context. We have touched on child second language processing and language mixing. Language mixing functions to fill in a linguistic need and to maximize communicative competence. Language mixing also offers interesting topics in relation to the model of bilingualism and to the grammar from which mixed discourse is generated.

Language contact phenomena, bilingualism, language mixing, code-switching, transfer and borrowing pose psycholinguistically as well as sociolinguistically interesting study which deserve further research in the future.

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